

CLAIMS

- Sub B5
1. A fuel transfer apparatus for an aircraft comprising:

two or more fuel tanks (2,3,4,5,6) arranged in an inboard to outboard alignment, at least one being situated in a wing (1) of the aircraft, means for transferring fuel between the tanks (8, 9), and a fuel management system (10) for controlling and monitoring the transfer of fuel between tanks

wherein the fuel management system comprises;

means for receiving a first input signal that the aircraft has left the ground,

means for receiving a second input signal¹⁰ that the aircraft is approaching its destination,

means for initiating the transfer of the fuel from a relatively inboard tank location to a relatively outboard tank location in response to the first input signal, and

means for initiating the transfer of the fuel from a relatively outboard tank location to a relatively inboard tank location in response to the second input signal.

2. A fuel transfer apparatus as claimed in claim 1 wherein the fuel management system (10) is computerised and comprises a computer algorithm designed to respond to the various input signals and initiate the fuel transfer in the desired sequence.

3. A fuel transfer apparatus as claimed in claim 2 wherein the computer algorithm is specific to a pre-programmed flight path for the aircraft.

- Sub B6 a
4. A fuel transfer apparatus as claimed in ~~any preceding claim~~¹ wherein the fuel management system (10) is programmed to respond to a first signal sent to the flight control system of the aircraft when the gear wheels have left the ground.

- a 5. A fuel transfer apparatus as claimed in ~~any preceding claim~~ wherein the fuel management system (10) is programmed to respond to a second input signal that the aircraft has descended to a certain altitude on its approach to land.
6. A fuel transfer apparatus as claimed in ~~any of claims 1 to 4~~ ^{Claim 1} wherein a second input signal is relayed between the flight control program and the fuel management system (10) when a certain point on a pre-programmed flight path has been reached.
- a 7. A fuel transfer apparatus as claimed in ~~any preceding claim~~ wherein the fuel management system (10) will have manual override facility to enable flight crew to adapt to unforeseen circumstances.
- a 8. An aircraft comprising a fuel transfer apparatus as claimed in ~~any one of the preceding claims~~ ^{Claim 1}.

add B7